

SYSTEM AND METHOD OF CAPTURING AND DESTROYING ORGANIC HAZARDOUS AGENTS RELEASED WITHIN AN ENCLOSED SPACE

ABSTRACT OF THE DISCLOSURE

[0026] The system includes a blower for circulating air during a normal in-service operation to a building having a number of enclosed spaces, at least one filter containing a bed of, for example, about 100 tons of granulated activated carbon for capturing bio-agents that may be present in the air, and a steam/carbon dioxide reformer for destroying the bio-agents captured on the bed in the presence of steam and syn-gas being circulated over the bed during the reactivation operation. The method includes passing the air through the filter bed, circulating the filtered air to the enclosed spaces during the in-service operation, detecting and warning building occupants with a biosensor within the enclosed spaces of the possible any bio-agent release, adsorbing on the bed any bio-agents, sealing off air circulation, passing a steam and syn-gas mixture through the bed if a bio-agent is detected; and circulating steam from the bed to a steam/carbon dioxide reformer to destroy the bio-agents on the bed.